

## REMARKS

### Amendments to the Specification

The Examiner objected to the application in the Office Action of December 5, 2005, stating that it failed to provide proper antecedent basis for the claimed subject matter (specifically lines 4 and 5 of claim 6) as required by 37 CFR § 1.75(d)(1) and MPEP § 608.01(o). Applicants have cancelled claim 6 making the objection moot. As such, Applicants request withdrawal of the objection to the specification.

### Amendments to the Claims

Claim 11, objected to as depending from a rejected base claim but considered by the Examiner to be allowable if re-written in independent form with all of the limitations of the base claim and intervening claims, has been amended to include the limitations of claims 1 and 8. As such, Applicants submit that claim 11 is allowable, as indicated by the Examiner in the Office Action (see p. 2).

In addition, Applicants have cancelled pending claims 1-10 and 12-30, and added new claims 31-46, which are based on the original 16 claims submitted with the international application. (The claims are submitted as new claims, rather than amended claims, because the numbering and markings to show amendments became so complicated as to be confusing). The new claims now mirror those granted in the corresponding European application, and reflect the language of the claims as originally filed. With respect to the original claim language, claim 31 now recites that the process is carried out using reactants consisting only of an organic compound having the given formula optionally in the presence of one or more further organic compounds having the given formulae. Claim 31 also recites that during the process of the present invention the reactants are exposed only to carbon dioxide and to a heterogeneous catalyst which is able to provide a source of acid in a continuous flow reactor. Finally, claim 31 makes clear that the carbon dioxide is under supercritical conditions.

Claim 35, based on original claim 7, has deleted reference to metal oxides from the list of possible catalysts.

Support for new claims 31-46 is found throughout the application, and correspond to original claims. For the Examiner's convenience, a table which correlates the new claims with the original claims is provided below:

New Claim	Original Claim(s) (from International PCT Application as originally filed)
31	1, 4 and 6
32	2
33	2
34	3
35	7
36	8
37	9
38	10
39	10
40	11
41	12
42	12
43	13
44	14
45	15
46	16

As such, Applicants submit that new claims 31-46 do not represent addition of new matter.

#### Rejections Under 35 USC §103(a)

As stated in the Office Action of December 5, 2005 ("Office Action"), "Claims 1-10 and 12-30 were rejected under 35 USC §103(a) as being unpatentable over Sun (US6,046,373) alone or in view of Sun et al. (US5,962,800 (sic)),” (*see* Office Action, p. 3.) As now written,

Applicants respectfully submit that the new added claims are not obvious. The Sun document US6,046,373, hereinafter “Sun 1”) discloses the process of converting oxygenate feed to olefins comprising contacting the oxygenate feed with a catalyst in the presence of electro-magnetic energy comprising a frequency and a power effective to form the catalyst, (see col. 1, lines 38-46.) Sun 1 neither teaches nor suggests that oxygenates can be converted to olefins in the presence of a catalyst and carbon dioxide without being exposed to electro-magnetic energy. It is therefore submitted that there is no motivation for the skilled person to modify the process disclosed in Sun 1 to convert oxygenates to olefins in the presence of a catalyst and carbon dioxide without exposing the oxygenate to electro-magnetic energy. It is therefore respectfully submitted that the process of the present invention is non-obvious with regards to the disclosure of Sun 1.

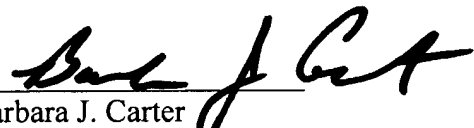
Sun et al. (US5,925,800, hereinafter “Sun 2”) discloses a process for converting oxygenates to olefins comprising exposing oxygenates to a catalytic coating comprising a non-zeolite molecular sieve catalyst. Sun 2, however, does not disclose a process in which the oxygenate is converted to olefins by exposing the oxygenate to a catalyst in the presence of carbon dioxide only. Furthermore, Sun 2 does not disclose a process in which the carbon dioxide is present under supercritical conditions. It is therefore respectfully submitted that Sun 2 does not provide any motivation for the skilled person to modify the process to convert oxygenates to olefins by exposing the oxygenates to the catalyst in the presence of carbon dioxide only. The process of the present invention is non-obvious in view of what is disclosed in Sun 2.

Neither Sun 1 nor Sun 2 teaches or suggests a process in which the oxygenates are converted to olefins by exposing the oxygenates to a heterogeneous catalyst and carbon dioxide alone. Hence, Applicants respectfully submit that the combination of these two documents cannot render the invention obvious.

## CONCLUSION

In view of the above-arguments, Applicants respectfully request withdrawal of the claim objections and obviousness rejections under 3 USC § 103(a), and submit that all claims are in condition for allowance. Reconsideration of the claims and a notice of allowance are therefore requested.

Applicants believe that a one-month extension is required, and therefore submit a check in the amount of \$120 to cover the one-month extension fee, along with a check for \$1440 to cover the four multiple dependent claims. However, in the event that additional fees are due for the timely consideration of this application, Applicants request that any necessary fees be charged to Deposit Account No. 19-4972.

---

Barbara J. Carter  
Registration No. 52,703  
Attorney for Applicants

April 5, 2006

BROMBERG & SUNSTEIN, LLP  
125 Summer Street  
Boston, MA 02110-1618  
Tel: (617) 443-9292  
Fax: (617) 443-0004

02544/00104 483042.1